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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/790,451	NOFFKE ET AL.	
	Examiner	Art Unit	
	Edward Park	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *26 September 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *7/2/07*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. This action is responsive to applicant's amendment and remarks received on 9/26/07. Claims 1-40 are currently pending.

Claim Objections

2. **Claims 1, 14, 24, 30, 38** are objected to because of the following informalities:

In regards to claim 1, in line 4, the phrase, "a printed substrate", appears to be a typographical error and should be corrected to "the printed substrate".

In regards to claim 14, in line 4, the phrase, "a printed substrate", appears to be a typographical error and should be corrected to "the printed substrate".

In regards to claim 24, in line 3, the phrase, "a printed substrate", appears to be a typographical error and should be corrected to "the printed substrate".

In regards to claim 30, in line 4, the phrase, "a printed substrate", appears to be a typographical error and should be corrected to "the printed substrate".

In regards to claim 38, in line 3, the phrase, "a printed substrate", appears to be a typographical error and should be corrected to "the printed substrate".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. **Claims 1, 14, and 30**, are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. All of the claims call for the element "same acquired image". However, corresponding specification does not have both sensors acquiring/receiving/processing the same image. Rather the specification has both sensors capturing/acquiring an image of the same object which is entirely different. *In re Wands*, states that any person skilled in the art has to be able to make and use the invention without undue experimentation. In light of the specification and the interpreting the claims, it is clear to a person skilled in the art that having two sensors acquire the exact same image would require undue experimentation.

6. **Claims 1, 14, and 30**, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regards to claim 1, the claim calls for the element, "a second processor including a second image sensor that receives the same acquired image from the printed substrate". The same acquired image deems the claim to be vague and indefinite. Is the second processor receiving the same acquired image? If so, then what is the purpose of the second image sensor? Is the second image sensor offline? Does the second image sensor receive the same acquired image? If so, then this would lead to an enablement issue, since two sensors can not acquire the same exact image. Further clarification and correction is required.

Regards to claim 14, the claim calls for the element, "a second processor including a small format sensor to process information from the same acquired image". The same acquired image deems the claim to be vague and indefinite. Is the second processor processing the same acquired image? If so, then what is the purpose of the second image sensor? Is the second image sensor offline? Does the second image sensor process the same acquired image? If so, then this would lead to an enablement issue, since two sensors can not process/acquire the same exact image. Further clarification and correction is required.

Regards to claim 30, the claim calls for the element, "a second processor including a second image sensor that receives at least a second portion of the acquired image". The claim does not state that the first and second portion can not be the same. Assuming that the first and second portion of the acquired image is the same, then the first and second portion are equivalent. Therefore, it leads to a vague and unclear claim language. Does the second processor or the second image sensor receives the "same" acquired image? If the second processor receives the "same" acquired image, then what is the purpose of the second image sensor? Is the second image sensor off? Does the second image sensor receive the "same"

acquired image? If so, then this would lead to an enablement issue, since two sensors can not acquire the same exact image. Further clarification and correction is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. **Claims 1, 3, 4, 6, 9, 10, 11, 12, 13, 24, 25, 26, 28, 29, 30, 31, 32, 34, 37, 38, 39, 40** are rejected under 35 U.S.C. 102(b) as being anticipated by Sikes et al (US 6,058,201).

Regarding **claim 1** (as best understood), Sikes teaches an image processing apparatus for use with a printed substrate, the image processing apparatus comprising:

a first processor (Sikes: figure 2, numeral 98 (on the left)) including a first image sensor (Sikes: figure 2, numeral 95 (top left apparatus) which has the CCD sensor of figure 1, numeral 30) that receives an acquired image from a printed substrate (Sikes: figure 1, numeral 36);

and a second processor (Sikes: figure 2, numeral 98 (on the right)) including a second image sensor (Sikes: figure 2, numeral 95 (top right apparatus)) that receives the same acquired image from the printed substrate (Sikes: figure 2, numeral 101 the network allows the images to

be sent to both of the processors); wherein both the first and the second processors are capable of processing the spectral information from the acquired image ("determining reflective density values of each color of ink that is printed on a web"; Sikes: col. 4, lines 21-33; col. 32, lines 18-22).

Regarding **claim 3**, Sikes discloses the first processor includes a single black and white CCD sensor (Sikes: figure 1, numeral 30).

Regarding **claim 4**, Sikes discloses the first processor includes a three CCD color sensor (Sikes: figure 1, numeral 30).

Regarding **claim 6**, Sikes teaches the second processor includes an area-scan CCD sensor (figure 1, numeral 30; figure 2; "acquire matrix images of portions of the web"; Sikes: col. 6, lines 21-36; col. 17, lines 24-36).

Regarding **claim 9**, Sikes teaches the first processor and the second processor are in communication such that information from one of the first or second processors can be used to direct the function of the other of the first or second processors (Sikes: figure 2, numeral 101).

Regarding **claim 10**, Sikes teaches information from the first processor can be used to control the registration of the second processor (Sikes: figure 12; col. 26, lines 63-67; col. 27, lines 1-20).

Regarding **claim 11**, Sikes teaches information from the second processor can be used to calibrate the first processor (Sikes: figure 12; col. 26, lines 63-67; col. 27, lines 1-20).

Regarding **claim 12**, Sikes teaches first and second processors having different dynamic ranges (Sikes: col. 1, lines 42-61; col. 4, lines 56-67; col. 14, lines 49-58; col. 15, lines 35-55).

Regarding **claim 13**, Sikes teaches wherein the second processor is removable (see figure 2, numeral 98 (on the right) all processors can be physically removed).

Regarding **claim 24**, Sikes teaches a method for monitoring the color of a printed substrate, the method comprising:

acquiring an image from a printed substrate (Sikes: figure 2, numeral 95 which is a CCD matrix sensor as shown in figure 1, numeral 32);

providing the acquired image to a first processor (Sikes: figure 2, numeral 98 (on the left) workstation is equivalent to a first processor, even if the workstation stores the acquired image for display, it is considered to be processed); and

providing the same acquired image to a second processor (Sikes: figure 2, numeral 98 (on the right) workstation is equivalent to a second processor, even if the workstation stores the acquired image for display, it is considered to be processed);

wherein both the first processor and the second processor are capable of processing spectral information from the acquired image (see Sikes: figure 2, numeral 98 (left and right workstation processor) col. 4, lines 21-33; col. 7, lines 35-62; col. 32, lines 18-22 workstations; measure the reflective density of print test areas on two sides of two webs).

Regarding **claim 25**, Sikes teaches processing the spatial information ("geometric measurements of print test areas"; Sikes: col. 7, lines 35-62) from the acquired image using the first processor and processing the spectral information ("reflective density of print test areas"; Sikes: col. 7, lines 35-62) from the acquired image using the second processor.

Regarding **claim 26**, Sikes teaches acquiring the image from the printed substrate includes acquiring a plurality of color portions on the printed substrate within the image (figure

1, 2; "acquire matrix images of portions of the web"; Sikes: col. 6, lines 21-36; col. 17, lines 24-36).

Regarding **claim 28**, controlling the registration of the second processor using information from the first processor (Sikes: figure 12; col. 26, lines 63-67; col. 27, lines 1-20).

Regarding **claim 29**, calibrating the first processor using information from the second processor (Sikes: figure 12; col. 26, lines 63-67; col. 27, lines 1-20).

Regarding **claim 30** (as best understood), Sikes teaches an image processing apparatus for use with a printed substrate, the image processing apparatus comprising:

a first processor (Sikes: figure 1, numeral 98 (on the left)) including a first image sensor (Sikes: figure 2, numeral 95 (on the top left)) that receives at least a first portion (see figure 2, numeral 101 network allows the first portion which is equivalent to the whole image and second portion to be transmitted to the first processor) of an acquired image from a printed substrate (figure 1, 2; "acquire matrix images of portions of the web"; Sikes: col. 6, lines 21-36; col. 17, lines 24-36); and a second processor (Sikes: figure 1, numeral 98 (on the right)) including a second image sensor (see figure 2, numeral 95 (on the top right)) that receives at least a second portion (see figure 2, numeral 101 network allows the second portion which is equivalent to the whole image and the first portion to be transmitted to the second processor) of the acquired image from the printed substrate (figure 1, 2; "acquire matrix images of portions of the web"; Sikes: col. 6, lines 21-36; col. 17, lines 24-36); wherein both the first and second processors are capable of processing the spectral information from the first and second portions of the acquired image, respectively ("determining reflective density values of each color of ink that is printed on a web"; Sikes: col. 4, lines 21-33; col. 32, lines 18-22).

Regarding **claim 31**, Sikes teaches the first processor includes a large format sensor (Sikes: figure 1, numeral 30).

Regarding **claim 32**, Sikes teaches the first processor includes a three CCD color sensor (Sikes: figure 1, numeral 30).

Regarding **claim 34**, Sikes teaches the second processor includes an area-scan CCD sensor (figure 1, numeral 30; figure 2; "acquire matrix images of portions of the web"; Sikes: col. 6, lines 21-36; col. 17, lines 24-36).

Regarding **claim 37**, Sikes teaches information from the first processor is used to register the second processor (Sikes: figure 12; col. 26, lines 63-67; col. 27, lines 1-20), and wherein information from the second processor is used to calibrate the first processor (Sikes: figure 12; col. 26, lines 63-67; col. 27, lines 1-20).

Regarding **claim 38**, Sikes teaches a method for monitoring the color of a printed substrate, the method comprising:

acquiring an image from multiple color portions on a printed substrate (figure 1, numeral 30; figure 2; "acquire matrix images of portions of the web"; Sikes: col. 6, lines 21-36; col. 17, lines 24-36);

processing information generated from a first portion of the acquired image using a first processor (Sikes: figure 2, numeral 98 (on the left) workstation is equivalent to a first processor, even if the workstation stores the acquired image for display, it is considered to be processed; first portion and second portion are equivalent);

processing information generated from a second portion of the acquired image using a second processor (Sikes: figure 2, numeral 98 (on the right) workstation is equivalent to a second

processor, even if the workstation stores the acquired image for display, it is considered to be processed; first portion and second portion are equivalent);

registering the second processor using information from the first processor (see col. 7, lines 35-62; CMP module communicates messages from each component to another which acknowledges or registers the two workstations since each need to know the other exists to communicate);

and calibrating the first processor using information from the second processor (see col. 7, lines 35-62; the first workstation accepting the message from the second process alters/calibrates the first processor).

Regarding **claim 39**, Sikes teaches processing information generated from the first portion of the acquired image using the first processor includes processing the spatial ("measure the geometric measurements of print test areas"; Sikes: col. 7, lines 35-62) and spectral information generated from the first portion of the image ("determining reflective density values of each color of ink that is printed on a web"; Sikes: col. 4, lines 21-33; col. 32, lines 18-22).

Regarding **claim 40**, Sikes teaches processing information generated from the second portion of the acquired image using the second processor includes processing the spatial ("measure the geometric measurements of print test areas"; Sikes: col. 7, lines 35-62) and spectral information generated from the second portion of the image ("determining reflective density values of each color of ink that is printed on a web"; Sikes: col. 4, lines 21-33; col. 32, lines 18-22).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. **Claims 2, 5, 8, 33,** are rejected under 35 U.S.C. 103(a) as being unpatentable over Sikes et al (US 6,058,201) in view of Juang (US 5,999,636).

Regarding **claim 2**, Sikes discloses all elements as mentioned above in claim 1. Sikes further teaches the first processor includes a large format sensor (Sikes: figure 1, numeral 30) and a second processor (Sikes: figure 2, numeral 98 (on the right)). Sikes does not teach a small format sensor.

Juang, in the same field of endeavor of inspecting printed material (col. 1, lines 7-10), teaches a small format sensor ("line scan camera"; Juang: col. 4, lines 38-55).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Sikes reference to utilize a small format sensor with the second processor as suggested by Juang, to maintain "a high defect-detection sensitivity and a relatively low computational cost" (col. 3, lines 1-17) by utilizing an inexpensive sensor simultaneously with the other sensor and two processors.

Regarding **claim 5**, Sikes discloses all elements as mentioned above in claim 1. Sikes does not teach a line-scan CCD sensor.

Juang, in the same field of endeavor of inspecting printed material (col. 1, lines 7-10), teaches a line-scan CCD sensor ("line scan camera"; Juang: col. 4, lines 38-55).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Sikes reference to utilize a line-scan CCD sensor with the second processor as suggested by Juang, to maintain "a high defect-detection sensitivity and a relatively low computational cost" (col. 3, lines 1-17) by utilizing an inexpensive sensor simultaneously with the other sensor and two processors.

Regarding **claim 8**, Sikes discloses all elements as mentioned above in claim 1. Sikes further teaches wherein the first processor includes a sensor having a low spectral resolution and a second processor. Sikes does not teach a sensor having a high spectral resolution.

Juang, in the same field of endeavor of inspecting printed material (col. 1, lines 7-10), teaches a sensor having a high spectral resolution ("line scan camera"; Juang: col. 4, lines 38-55).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Sikes reference to utilize a sensor having a high spectral resolution with the second processor as suggested by Juang, to maintain "a high defect-detection sensitivity and a relatively low computational cost" (col. 3, lines 1-17) by utilizing an inexpensive sensor simultaneously with the other sensor and two processors.

Regarding **claim 33**, Sikes discloses all elements as mentioned above in claim 30. Sikes does not teach a small format sensor.

Juang, in the same field of endeavor of inspecting printed material (col. 1, lines 7-10), teaches a small format sensor ("line scan camera"; Juang: col. 4, lines 38-55).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Sikes reference to utilize a small format sensor with the second processor as suggested by Juang, to maintain "a high defect-detection sensitivity and a relatively low computational cost" (col. 3, lines 1-17) by utilizing an inexpensive sensor simultaneously with the other sensor and two processors.

11. **Claims 7, 14, 15, 16, 17, 18, 19, 21, 22, 23** are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Sikes et al (US 6,058,201) with Juang (US 5,999,636), and further in view of Hunter (US 6,630,995 B1).

Regarding **claim 7**, Sikes discloses all elements as mentioned above in claim 1. Sikes further teaches the second processor includes capturing and directing the acquired image to the second processor (Sikes: figure 2, numeral 101). Sikes does not teach a utilizing a fiber optic bundle.

Hunter teaches a fiber optic bundle ("fiber optic cable"; Hunter: col. 18, lines 39-51)

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Sikes reference to utilize a fiber optic bundle as suggested by Hunter, to allow for "large amounts of the broadband light source" (Hunter: col. 18, lines 39-51) and also to accommodate large transmission rates from one processor to another.

Regarding **claims 14, 18, and 19** (as best understood), Sikes teaches an image processing apparatus for use with a printed substrate, the image processing apparatus comprising:

a first processor (Sikes: figure 2, numeral 98 (on the left) workstation is equivalent to a first processor, even if the workstation stores the acquired image for display) including a large format sensor (Sikes: figure 2, numeral 95 (on the top left); figure 1, numeral 30) to process

information (see figure 2, numeral 101 allows the information to be transmitted to the first processor) from an image acquired from a printed substrate (figure 1, numeral 30; figure 2; "acquire matrix images of portions of the web"; Sikes: col. 6, lines 21-36; col. 17, lines 24-36);

a second processor (Sikes: figure 2, numeral 98 (on the right)) including a sensor (see figure 2, numeral 95 (on the top right)) to process information from the same acquired image (see figure 2, numeral 101 allows the information to be transmitted to the first processor and the second processor); and

a bundle positioned to receive the acquired image from the printed substrate and operable to direct the acquired image to the second processor (Sikes: figure 2, numeral 101);

wherein both the first processor and the second processor are operable to process the spectral information from the acquired image ("determining reflective density values of each color of ink that is printed on a web"; Sikes: col. 4, lines 21-33; col. 32, lines 18-22).

Sikes does not teach a small format sensor, line-scan CCD sensor, and a high spectral resolution processor, and fiber optic bundle.

Juang, in the same field of endeavor of inspecting printed material (col. 1, lines 7-10), teaches a small format sensor, line-scan CCD sensor, and a high spectral resolution processor ("line scan camera"; Juang: col. 4, lines 38-55).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Sikes reference to utilize a small format sensor or line-scan CCD sensor or a high spectral resolution with the second processor as suggested by Juang, to maintain "a high defect-detection sensitivity and a relatively low computational cost" (col. 3, lines 1-17) by utilizing an inexpensive sensor simultaneously with the other sensor and two processors.

Hunter teaches a fiber optic bundle ("fiber optic cable"; Hunter: col. 18, lines 39-51).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Sikes with Juang combination as mentioned above to utilize a fiber optic bundle as suggested by Hunter, to allow for "large amounts of the broadband light source" (Hunter: col. 18, lines 39-51) and also to accommodate large transmission rates from one processor to another.

Regarding **claim 15**, Sikes teaches a first processor is a spatial imaging device ("measure the geometric measurements of print test areas"; Sikes: col. 7, lines 35-62).

Regarding **claim 16**, Sikes teaches the spatial imaging device ("measure the geometric measurements of print test areas"; Sikes: col. 7, lines 35-62) includes a single CCD, black and white sensor (Sikes: figure 1, numeral 30).

Regarding **claim 17**, Sikes teaches a spatial imaging device ("measure the geometric measurements of print test areas"; Sikes: col. 7, lines 35-62) is also adapted to process the spectral information from the acquired image ("determining reflective density values of each color of ink that is printed on a web"; Sikes: col. 4, lines 21-33; col. 32, lines 18-22).

Regarding **claim 21**, Sikes teaches information from the first processor can be used to control the registration of the second processor (Sikes: figure 12; col. 26, lines 63-67; col. 27, lines 1-20).

Regarding **claim 22**, Sikes teaches information from the second processor can be used to calibrate the first processor (Sikes: figure 12; col. 26, lines 63-67; col. 27, lines 1-20).

Regarding **claim 23**, Sikes teaches wherein the second processor (Sikes: figure 1,2) is removable (all processors can be removed, e.g. pins or processing removing apparatus).

12. **Claim 20** is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Sikes et al (US 6,058,201), Juang (US 5,999,636), with Hunter (US 6,630,995 B1), and further in view of Seymour (US 5,724,259).

Regarding **claim 20**, the Sikes, Juang, with Hunter combination discloses all elements as mentioned above in claim 14. Sikes, Juang, with Hunter combination does not teach a third processor that analyzes data from the first and second processors, and wherein the third processor digitizes the data to reduce the effects of scattered light.

Seymour teaches a third processor that analyzes data from the first and second processors, and wherein the third processor digitizes the data to reduce the effects of scattered light (figure 6, 8; "scattered light correction"; Seymour: col. 9, lines 34-37).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Sikes, Juang, with Hunter combination as mentioned above to utilize a third processor to reduce the effects of scattered light as suggested by Seymour, to correct the inaccurate "optical density measurements of color [caused by] degrading effects of glare and scattered light" (Seymour: col. 1, lines 51-60).

13. **Claim 27** is rejected under 35 U.S.C. 103(a) as being unpatentable over Sikes et al (US 6,058,201) in view of Seymour (US 5,724,259).

Regarding **claim 27**, Sikes discloses all elements as mentioned above in claim 24. Sikes further teaches processing the spatial information generates a first signal ("geometric measurements of print test areas"; Sikes: col. 7, lines 35-62) and processing the spectral information generates a second signal ("determining reflective density values of each color of ink that is printed on a

web"; Sikes: col. 4, lines 21-33; col. 32, lines 18-22). Sikes does not teach processing the first and second signals to correct for the effects of scattered light.

Seymour teaches processing the first and second signals to correct for the effects of scattered light (figure 6, 8; "scattered light correction"; Seymour: col. 9, lines 34-37).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Sikes reference as mentioned above to process the first and second signals as suggested by Seymour, to correct the inaccurate "optical density measurements of color [caused by] degrading effects of glare and scattered light" (Seymour: col. 1, lines 51-60).

14. **Claim 35, 36** is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Sikes et al (US 6,058,201) with Juang (US 5,999,636), and further in view of Seymour (US 5,724,259).

Regarding **claim 35**, Sikes discloses all elements as mentioned above in claim 30. Sikes does not teach a first lens; a light blocker having a slit therein; a second lens; and a third lens.

Seymour teaches a first lens; a light blocker having a slit therein; a second lens; and a third lens (Seymour: figure 4a).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Sikes reference to utilize the configuration as suggested by Seymour, to allow efficient, accurate acquisition of the image by utilizing the specific parameters/components for the imaging processing apparatus.

Regarding **claim 36**, Sikes discloses all elements as mentioned above in claim 30. Sikes does not teach a diffraction grating or a prism.

Seymour teaches a diffraction grating or a prism (figure 2, numeral 46; "dichroic prism"; Seymour: col. 5, lines 26-34).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Sikes reference to a prism as suggested by Seymour, to "separate reflected light from the printed image on the web 12 into a red channel 64, a green channel 66, and a blue channel 68" (Seymour: col. 5, lines 26-34).

Response to Arguments

15. Applicant's arguments filed 9/26/07, with respect to **claim 1**, have been fully considered but they are not persuasive. Applicant argues that the limitations of claim 1 have not been met. This argument is not considered persuasive and the rejection of claim 1 has been further clarified above.

In regards to **claim 3**, applicant argues that Sikes does not teach a single black and white CCD sensor. This argument is not considered persuasive since the applicant acknowledges that the specified sensor is a color CCD Matrix sensor, therefore it meets the limitations of the claim. Black and white are colors that can be imaged by a color CCD Matrix sensor. A color CCD Matrix sensor is able to image any visible color to the human eye which includes black and white.

In regards to **claim 30**, applicant argues that the claim limitations of claim 30 are not met. This argument is not considered persuasive and the rejection of claim 30 has been further clarified above.

In regards to **claim 24**, applicant argues that the claim limitations of claim 24 are not met and furthermore applicant argues claim limitations that are not stated within claim 24. These arguments are not considered persuasive since the claim limitations as mentioned above in the rejection of claim 24. Also, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e. see arguments for claim 24,) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In regards to **claim 38**, applicant argues that the claim limitations of claim 38 are not met. This argument is not considered persuasive and the examiner has further explained in the rejection of claim 38 above.

In regards to **claims 2, 5, 8, and 33**, applicant argues that there is no motivation to combine Juang with Sikes. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the applicant's argument is not considered persuasive since there is motivation mentioned above in the rejection of claims 2, 5, 8, and 33. The motivation alone is able combine the two sensors of both references since integrating two

well-known devices into one apparatus or system is obvious engineering choice. See *In re Larson*, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965).

In regards to **claim 7**; applicant argues that Sikes and Hunter do not meet the claim limitations of claim 7. This argument is not considered persuasive since the limitations are met and the rejection of claim 7 can be seen above.

In regards to **claim 14**, applicant argues that the claim limitations of claim 14 are not met, the two different sensors are utilized simultaneously, and furthermore applicant argues that there is no motivation to combine Juang or Hunter with the primary reference Sikes. This argument is not considered persuasive and the rejection of claim 14 can be seen above. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., employing the two different sensors simultaneously) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, applicant argues that there is no motivation to utilize two different sensors, which is not persuasive and the rejection can be seen above. In response to applicant's argument that Hunter is not related to image

processing of a printed substrate is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, the argument is not found persuasive and the examiner notes that the concept of utilizing a fiber optic technology is incorporated into the combination of references, no more or less, and therefore satisfies the limitations of claim 14.

In regards to **claim 20**, applicant argues that Seymour does not teach a large format sensor or a small format sensor. This argument is not considered persuasive since a large format sensor and a small format sensor are taught by the combination of Sikes, Juang, with Hunter above in claim 14. Seymour merely incorporates a third processor that digitizes the data to reduce the effects of scattered light, no more or less. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In regards to **claim 27, 35, 36**, applicant argues that Seymour does not teach the limitations of the claims. This argument is not considered persuasive and the rejection of claim 27, 35, 36 can be seen above.

Conclusion

16. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward Park whose telephone number is (571) 270-1576. The examiner can normally be reached on M-F 10:30 - 20:00, (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vikkram Bali can be reached on (571) 272-7415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Edward Park
Examiner
Art Unit 2624

/Edward Park/

VIKRAM BALI
PRIMARY EXAMINER